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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,007	08/14/2001	James William Otter	60246-141/9700	9100

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EXAMINER

CORCORAN, GLADYS PIAZZA

ART UNIT PAPER NUMBER

1733

DATE MAILED: 01/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/930,007

Applicant(s)

OTTER, JAMES WILLIAM

Examiner

Gladys J Piazza Corcoran

Art Unit

1733

-The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

THE REPLY FILED 08 December 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
(a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ they raise the issue of new matter (see Note below);
(c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: 1-6, 10, 11 and 21-27.Claim(s) withdrawn from consideration: 7-9 and 12-20.

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____


Gladys J. Piazza Corcoran
Examiner
Art Unit: 1733

Supplement to Advisory Action

Continuation of 3. Applicant's reply has overcome the following rejection(s):

The 35 USC 103 rejection for claim 1 in paragraph 3 of the prior Office Action, filed October 6, 2003 is overcome by the amendment of placing the claim limitations of claim 2 into claim 1.

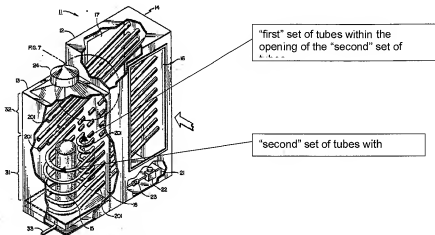
Continuation of 5. does NOT place the application in condition for allowance because:

The claim limitations are fully met by the references. Applicant has amended claim 1 to include the limitations of claim 2. Consequently, current claims 1, 3-6, 10, 11, 21-23 are rejected under 35 USC 103a as being unpatentable over Ripka et al. in view of Fletcher et al. and Winter et al. and further in view of Ninomiya et al. and Taga as set forth in paragraph 5 of the prior Office Action, filed October 6, 2003. Additionally, claims 24-27 are rejected under 35 USC 103a as being unpatentable over Ripka et al. in view of Fletcher et al. in view of Winter et al. as set forth in paragraph 4 of the prior Office Action, filed October 6, 2003.

Applicant argues on page 7 that Ripka discloses forming an air heating apparatus of tubes made of copper and that there is no suggestion to make the tubes of Ripka of any other material other than metal and no suggestion to form the tubes of norbornene. The reference Fletcher discloses that it is known in the art of forming heat transfer components to form the tubes of a polymer material in order to reduce the weight of component as compared with forming the tubes of metal. Thus one of ordinary skill in the art at the time of the invention forming the component in Ripka would be motivated to form the tubes of a polymer in order to reduce the weight of the component as compared with forming the tubes from a metal as shown by Fletcher. While Fletcher does not appear to specifically mention forming the polymer tubes out of norbornene, Fletcher discloses forming the tubes of well known and available polymers suitable for the particular component including polyolefins and alloys or blends of polymers. Winter discloses forming tubes for a variety of articles including pipes, heat exchangers and automotive parts from a polyolefin including norbornene that is suitable for a variety of processes such as injection molding, extrusion and blow molding. Consequently, one of ordinary skill in the art at the time of the invention forming the component as shown by Ripka and Fletcher would be motivated to form the tubes of well known polymers for forming tubes for heat transfer components as shown by Winter. Only the expected results would be attained.

Applicant argues on page 7 that the reference Fletcher teaches tubes that are parallel and linear while Ripka discloses U-shaped tubes, that it would be impossible to employ linear tubes in Ripka, and that it would not be possible to employ linear tubes in Ripka due to the presence of Radiant burner 15, thus claims 24-27 are not obvious. It is noted that Ripka does disclose some tubes that are linear, however, for claims 24-27 the rejection is based on the U-shaped tubes of Ripka. As discussed in the previous Office Actions and above, it would have been obvious to one of ordinary skill in the art at the time of the invention forming the component in Ripka to form the tubes of a polymer in order to reduce the weight of the component as compared with forming the tubes from a metal as shown by Fletcher. Whether or not the tubes in Fletcher are linear or U-shaped is irrelevant. One of ordinary skill in the art would appreciate and have the knowledge and skill to form U-shaped tubes from a polymer by the method disclosed in Fletcher in order to form a lighter weight component than the metal version in Ripka. Only the expected results would be attained.

Applicant argues on page 8 that in reference to claims 24-27, it is not possible to locate a straight pipe between the U-shaped pipes of Ripka, that the u-shaped pipes are u-shaped in order to accommodate radiant burner 15. The claims do not require a straight pipe between a u-shaped pipe. Claim 24 only requires "a first expanded tube and a second u-shaped expanded tube having a pair of ends and an opening defined between the pair of ends, said u-shaped expanded tube is continuous between said pair of ends, and said first tube is located in said opening". Ripka fully meets the limitations of a first tube within the opening of a U-shaped tube. In figure 2 of Ripka, it is clear that a set of "first" tubes, which happen to also be u-shaped (the claims do not exclude u-shaped first tubes), are located within the openings of a set of "second" u-shaped tubes. Please see the attached drawing below.



Applicant argues on page 8 that the combination of references would teach against extrusion molding of the tubes, that Fletcher is manufactured as an integral unit by an injection molding process, that if the tubes were extruded then the apparatus could not be manufactured as an integral unit. The references Ninomiya and Taga both show that it is known in the art of forming tubes to extrude tubes as a well known equivalent alternative to injection molding and in order to provide for an easier and simpler manufacturing method by reducing the number of steps and the cost of manufacturing in particular for forming U-shaped tubes. Consequently, one of ordinary skill in the art at the time of the invention forming the component as shown by Ripka, Fletcher and Winter would be motivated to form the tubes by well known methods in the art such as extruding as a well known equivalent in the art to injection molding and as an improvement in order to reduce steps and the cost of manufacturing as compared to injection molding as shown by Ninomiya and Taga. Only the expected results would be attained.

Applicant further argues on page 8 in reference to claims 5, 6, 10 and 11 that it is not possible to position a straight pipe between the u-shaped pipe of Ripka due to the presence of radiant burner 15. The claims do not require a straight pipe between a u-shaped pipe. As discussed above, the references fully meet the limitations of the claims. Ripka does disclose a "first" tube within the opening of a "second" u-shaped tube. See the discussion above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gladys J Piazza Corcoran whose telephone number is

(571) 272-1214. The examiner can normally be reached on M-F 8am-5:30pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.


Gladys J. Piazza Corcoran
Examiner
Art Unit 1733

GJPC